CRF Errors Corrected by the STIC Systems Branch

Serial Number: _10/026,767_   **ENTERED**

CRF Processing Dat : _1/19/2002_
Edited by: _____
Verified by: _____ (STIC staff)

#2

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically:
_____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:
_____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
_____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
_____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included:
_____

☐ Deleted extra, invalid, headings used by an applicant, specifically:
_____

☑ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____.

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically:
_____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically:
_____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other:
_____
_____
_____

*Examiner: The above corrections must be communicated to the applicant in th first Office Action. DO NOT send a copy of this form.

3/1/95

OIPE

RAW SEQUENCE LISTING   DATE: 01/19/2002
PATENT APPLICATION: US/10/026,767   TIME: 14:40:57

Input Set : A:\PTO.txt
Output Set: N:\CRF3\01182002\J026767.raw

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 1 <110> APPLICANT: Hitachi, LTD.
 2       RIKEN
 3       Japan International Research Center for Agricultural Science
 4       Bio-oriented Technology Research Advancement Institute (BRAIN)
 6 <120> TITLE OF INVENTION: Transgenic rice plant and its family with environmental
 7       stress resistant by proline accumulation of high level and its
 8       production.
10 <130> FILE REFERENCE: NT01P0353
12 <140> CURRENT APPLICATION NUMBER: US/10/026,767        C-->
12 <141> CURRENT FILING DATE: 2001-12-27                  C-->
12 <160> NUMBER OF SEQ ID NOS: 3
14 <210> SEQ ID NO: 1
16 <211> LENGTH: 2549
18 <212> TYPE: DNA
20 <213> ORGANISM: Oryza sativa L.
22 <220> FEATURE:
24 <221> NAME/KEY: CDS
26 <222> LOCATION: 99..2249
28 <300> PUBLICATION INFORMATION:
30 <301> AUTHORs: Yumiko Igarashi, Yoshu Yoshiba, Yukika Sanada, Kazuko
31       Yamaguchi-Shinozaki, Keishiro Wada, Kazuo Shinozaki
33 <302> TITLE: Characterization of the gene for 1-pyrroline-5-carboxylate
34       synthetase and correlation between the expression of the gene and
35       salt tolerance in Oryza sativa L.
37 <303> JOURNAL: Plant Molecular biology
39 <304> VOLUME: 33
41 <306> PAGES: 857-865
43 <307> DATE: 1996-12-03
45 <308> DATABASE ACCESSION NO: D49714
47 <309> DATABASE ENTRY DATE: 1995-03-16
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57                                              Met Ala Ser Val Asp Pro
59                                               1               5
63 tcc cgg agc ttc gtg agg gac gtg aag cgc gtc atc atc aag gtg ggc    164
65 Ser Arg Ser Phe Val Arg Asp Val Lys Arg Val Ile Ile Lys Val Gly
67                10               15                20
71 act gca gtt gtc tcc aga caa gat gga aga ttg gct ttg ggc agg gtt    212
73 Thr Ala Val Val Ser Arg Gln Asp Gly Arg Leu Ala Leu Gly Arg Val
75           25               30               35
79 gga gct ctg tgc gag cag gtt aag gaa ctg aac tct tta gga tac gaa    260
81 Gly Ala Leu Cys Glu Gln Val Lys Glu Leu Asn Ser Leu Gly Tyr Glu
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RAW SEQUENCE LISTING   DATE: 01/19/2002
PATENT APPLICATION: US/10/026,767   TIME: 14:40:57

Input Set : A:\PTO.txt
Output Set: N:\CRF3\01182002\J026767.raw

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87  gtg att ttg gtc acc tca ggt gct gtt gga gtg ggg cga cag cga ctt    308
89  Val Ile Leu Val Thr Ser Gly Ala Val Gly Val Gly Arg Gln Arg Leu
91  55                    60                  65                  70
95  agg tac cgg aag ctt gtc aat agc agc ttt gct gat ctg caa aag cca    356
97  Arg Tyr Arg Lys Leu Val Asn Ser Ser Phe Ala Asp Leu Gln Lys Pro
99                    75                  80                  85
103 cag atg gag tta gat gga aag gct tgt gcc gct gtt ggt cag agt gga    404
105 Gln Met Glu Leu Asp Gly Lys Ala Cys Ala Ala Val Gly Gln Ser Gly
107               90                  95                  100
111 ctg atg gct ctt tac gat atg ttg ttt aac caa ctg gat gtc tcg tca    452
113 Leu Met Ala Leu Tyr Asp Met Leu Phe Asn Gln Leu Asp Val Ser Ser
115           105                 110                 115
119 tct caa ctt ctt gtc acc gac agt gat ttt gag aac cca aag ttc cgg    500
121 Ser Gln Leu Leu Val Thr Asp Ser Asp Phe Glu Asn Pro Lys Phe Arg
123     120                 125                 130
127 gag caa ctc act gaa act gtt gag tca tta tta gat ctt aaa gtt ata    548
129 Glu Gln Leu Thr Glu Thr Val Glu Ser Leu Leu Asp Leu Lys Val Ile
131 135                 140                 145                 150
135 cca ata ttt aat gaa aat gat gcc atc agc act aga aag gct cca tat    596
137 Pro Ile Phe Asn Glu Asn Asp Ala Ile Ser Thr Arg Lys Ala Pro Tyr
139                 155                 160                 165
143 gag gat tca tct ggt ata ttc tgg gat aat gac agt tta gca gga ctg    644
145 Glu Asp Ser Ser Gly Ile Phe Trp Asp Asn Asp Ser Leu Ala Gly Leu
147               170       .         175                 180
151 ttg gca ctg gaa ctg aaa gct gat ctc ctt att ctg ctc agt gat gtg    692
153 Leu Ala Leu Glu Leu Lys Ala Asp Leu Leu Ile Leu Leu Ser Asp Val
155           185                 190                 195
159 gat ggg ttg tat agt ggt cca cca agt gaa cca tca tca aaa atc ata    740
161 Asp Gly Leu Tyr Ser Gly Pro Pro Ser Glu Pro Ser Ser Lys Ile Ile
163     200                 205                 210
167 cac act tat att aaa gaa aag cat cag caa gaa atc act ttt gga gac    788
169 His Thr Tyr Ile Lys Glu Lys His Gln Gln Glu Ile Thr Phe Gly Asp
171 215                 220                 225                 230
175 aaa tct cgt gta ggt aga gga ggc atg aca gca aaa gtg aag gct gct    836
177 Lys Ser Arg Val Gly Arg Gly Gly Met Thr Ala Lys Val Lys Ala Ala
179               235                 240                 245
183 gtc ttg gct tca aat agc ggc aca cct gtg gtt att aca agt ggg ttt    884
185 Val Leu Ala Ser Asn Ser Gly Thr Pro Val Val Ile Thr Ser Gly Phe
187           250                 255                 260
191 gaa aat cgg agc att ctt aaa gtt ctt cat ggg gaa aaa att ggt act    932
193 Glu Asn Arg Ser Ile Leu Lys Val Leu His Gly Glu Lys Ile Gly Thr
195           265                 270                 275
199 ctc ttt cac aag aat gcg aat ttg tgg gaa tca tct aag gat gtt agt    980
201 Leu Phe His Lys Asn Ala Asn Leu Trp Glu Ser Ser Lys Asp Val Ser
203     280                 285                 290
207 act cgt gag atg gct gtt gcc gca aga gat tgt tca agg cat cta cag    1028
209 Thr Arg Glu Met Ala Val Ala Ala Arg Asp Cys Ser Arg His Leu Gln
211 295                 300                 305                 310
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215 aat ttg tca tca gag gaa cga aaa aag ata ttg cta gat gtt gca gat   1076
217 Asn Leu Ser Ser Glu Glu Arg Lys Lys Ile Leu Leu Asp Val Ala Asp
219                 315                 320                 325
223 gct ttg gag gca aat gag gat tta ata agg tct gag aat gaa gct gat   1124
225 Ala Leu Glu Ala Asn Glu Asp Leu Ile Arg Ser Glu Asn Glu Ala Asp
227                 330                 335                 340
231 gta gct gcg gcc caa gtt gct gga tat gag aag cct ttg gtt gct aga   1172
233 Val Ala Ala Ala Gln Val Ala Gly Tyr Glu Lys Pro Leu Val Ala Arg
235                 345                 350                 355
239 ttg act ata aaa cca gga aag ata gca agc ctt gca aaa tct att cgt   1220
241 Leu Thr Ile Lys Pro Gly Lys Ile Ala Ser Leu Ala Lys Ser Ile Arg
243         360                 365                 370
247 acc ctt gca aat atg gaa gac cct ata aac cag ata ctt aaa aag aca   1268
249 Thr Leu Ala Asn Met Glu Asp Pro Ile Asn Gln Ile Leu Lys Lys Thr
251 375                 380                 385                 390
255 gag gtt gct gat gat tta gtt ctt gag aaa aca tct tgc cca tta ggt   1316
257 Glu Val Ala Asp Asp Leu Val Leu Glu Lys Thr Ser Cys Pro Leu Gly
259                 395                 400                 405
263 gtt ctc tta att gtt ttt gag tcc cga cct gat gcc ttg gtt cag att   1364
265 Val Leu Leu Ile Val Phe Glu Ser Arg Pro Asp Ala Leu Val Gln Ile
267                 410                 415                 420
271 gca tct ttg gca att cga agt ggt aat ggt ctt ctc cta aaa ggt gga   1412
273 Ala Ser Leu Ala Ile Arg Ser Gly Asn Gly Leu Leu Leu Lys Gly Gly
275                 425                 430                 435
279 aaa gaa gct atc aga tca aac acg ata ttg cat aag gtt ata act gat   1460
281 Lys Glu Ala Ile Arg Ser Asn Thr Ile Leu His Lys Val Ile Thr Asp
283         440                 445                 450
287 gct att cct cgt aat gtt ggt gaa aaa ctt att ggc ctt gtt aca act   1508
289 Ala Ile Pro Arg Asn Val Gly Glu Lys Leu Ile Gly Leu Val Thr Thr
291 455                 460                 465                 470
295 aga gat gag atc gca gat ttg cta aag ctt gat gat gtc att gat ctt   1556
297 Arg Asp Glu Ile Ala Asp Leu Leu Lys Leu Asp Asp Val Ile Asp Leu
299                 475                 480                 485
303 gtc act cca aga gga agt aat aag ctt gtc tct caa atc aag gcg tca   1604
305 Val Thr Pro Arg Gly Ser Asn Lys Leu Val Ser Gln Ile Lys Ala Ser
307         490                 495                 500
311 act aag att cct gtt ctt ggg cat gct gat ggt ata tgc cac gta tat   1652
313 Thr Lys Ile Pro Val Leu Gly His Ala Asp Gly Ile Cys His Val Tyr
315         505                 510                 515
319 att gac aaa tca gct gac atg gat atg gca aaa ctt att gta atg gat   1700
321 Ile Asp Lys Ser Ala Asp Met Asp Met Ala Lys Leu Ile Val Met Asp
323 520                 525                 530
327 gca aaa act gat tac cca gca gcc tgc aat gca atg gag acc tta cta   1748
329 Ala Lys Thr Asp Tyr Pro Ala Ala Cys Asn Ala Met Glu Thr Leu Leu
331 535                 540                 545                 550
335 gtt cat aag gat ctt atg aag agt cca ggc ctt gac gac ata tta gta   1796
337 Val His Lys Asp Leu Met Lys Ser Pro Gly Leu Asp Asp Ile Leu Val
339                 555                 560                 565
343 gca cta aaa aca gaa gga gtt aat att tat ggt gga cct att gcg cac   1844
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345 Ala Leu Lys Thr Glu Gly Val Asn Ile Tyr Gly Gly Pro Ile Ala His
347             570             575             580
351 aaa gct ctg gga ttt cca aaa gct gtt tca ttt cat cat gag tat agt    1892
353 Lys Ala Leu Gly Phe Pro Lys Ala Val Ser Phe His His Glu Tyr Ser
355             585             590             595
359 tct atg gcc tgc act gtt gag ttt gtt gat gat gtt caa tca gca att    1940
361 Ser Met Ala Cys Thr Val Glu Phe Val Asp Asp Val Gln Ser Ala Ile
363     600             605             610
367 gac cat att cat cgt tat gga agt gct cat aca gat tgt atc gtc act    1988
369 Asp His Ile His Arg Tyr Gly Ser Ala His Thr Asp Cys Ile Val Thr
371 615             620             625             630
375 aca gat gat aag gta gca gag act ttt cta cgc aga gtt gat agt gct    2036
377 Thr Asp Asp Lys Val Ala Glu Thr Phe Leu Arg Arg Val Asp Ser Ala
379             635             640             645
383 gct gta ttt cat aat gca agt acg aga ttc tct gat ggg gct cgt ttt    2084
385 Ala Val Phe His Asn Ala Ser Thr Arg Phe Ser Asp Gly Ala Arg Phe
387             650             655             660
391 gga ttg ggt gct gag gtt ggc ata agc aca ggg cgt atc cat gcc cgt    2132
393 Gly Leu Gly Ala Glu Val Gly Ile Ser Thr Gly Arg Ile His Ala Arg
395             665             670             675
399 gga cca gtg ggt gtt gaa ggt ctc tta act aca cga tgg atc ttg cga    2180
401 Gly Pro Val Gly Val Glu Gly Leu Leu Thr Thr Arg Trp Ile Leu Arg
403     680             685             690
407 gga cgt ggg caa gtg gtg aat ggt gac aag gat gtc gtg tac acc cat    2228
409 Gly Arg Gly Gln Val Val Asn Gly Asp Lys Asp Val Val Tyr Thr His
411 695             700             705             710
415 aag agt ctt cct ttg caa tgaggtcaaa tgctcctttt agcctgttca          2276
417 Lys Ser Leu Pro Leu Gln
419             715
423 ggagtaggtg aatatccttt taagaatgga ttgactactt tattttgtca tcttgtacaa 2336
427 gcatcttatt gcggcattcc gatggattat tgattttggg ggttcccact ttcaaatgtg 2396
431 acaccaaaaa taaattcatc agttctgaga gcaagatttt ggaggttcag cttctccatg 2456
435 taataagtaa attcagttct gagaacttgt gtaccaacgc gctatgttgc ttgtaatgag 2516
439 cgatactaac atctgtgatt gcacatatac taa                              2549
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446 <212> TYPE: DNA
448 <213> ORGANISM: Arabidopsis thaliana
450 <220> FEATURE:
452 <221> NAME/KEY: CDS
454 <222> LOCATION: 107...2260
456 <301> AUTHORs: Yoshu Yoshiba, Tomohiro Kiyasue, Takeshi Katagiri, Hiroko
457       Ueda, Tsuyoshi Mizoguchi, Kazuko Yamaguchi-Shinozaki, Keishiro
458       Wada, Yoshinori Harada, Kazuo Shinozaki
460 <302> TITLE: Correlation between the induction of a gene for 1-
461       pyrroline-5-carboxylate synthetase and the accumulation of
462       proline in Arabidopsis thaliana under osmotic stress.
464 <303> JOURNAL: The Plant Journal
466 <304> VOLUME: 7
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468 <305> ISSUE: 5
470 <306> PAGES: 751-760
472 <307> DATE: 1995-01-20
474 <308> DATABASE ACCESSION NO: D32138
476 <309> DATABASE ENTRY DATE: 1994-07-12
478 <400> SEQUENCE: 2
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486                                                       Met Glu Glu
488                                                        1
492 cta gat cgt tca cgt gct ttt gcc aga gac gtc aaa cgt atc gtc gtt   163
494 Leu Asp Arg Ser Arg Ala Phe Ala Arg Asp Val Lys Arg Ile Val Val
496     5                   10                  15
500 aag gtt ggg aca gca gtt gtt act gga aaa ggt gga aga ttg gct ctt   211
502 Lys Val Gly Thr Ala Val Val Thr Gly Lys Gly Gly Arg Leu Ala Leu
504 20                  25                  30                  35
508 ggt cgt tta gga gca ctg tgt gaa cag ctt gcg gaa tta aac tcg gat   259
510 Gly Arg Leu Gly Ala Leu Cys Glu Gln Leu Ala Glu Leu Asn Ser Asp
512                 40                · 45                  50
516 gga ttt gag gtg ata ttg gtg tca tct ggt gcg gtt ggt ctt ggc agg   307
518 Gly Phe Glu Val Ile Leu Val Ser Ser Gly Ala Val Gly Leu Gly Arg
520             55                  60                  65
524 caa agg ctt cgt tat cga caa tta gtc aat agc agc ttt gcg gat ctt   355
526 Gln Arg Leu Arg Tyr Arg Gln Leu Val Asn Ser Ser Phe Ala Asp Leu
528         70                  75                  80
532 cag aag cct cag act gaa ctt gat ggg aag gct tgt gct ggt gtt gga   403
534 Gln Lys Pro Gln Thr Glu Leu Asp Gly Lys Ala Cys Ala Gly Val Gly
536     85                  90                  95
540 caa agc agt ctt atg gct tac tat gag act atg ttt gac cag ctt gat   451
542 Gln Ser Ser Leu Met Ala Tyr Tyr Glu Thr Met Phe Asp Gln Leu Asp
544 100                 105                 110                 115
548 gtg acg gca gct caa ctt ctg gtg aat gac agt agt ttt aga gac aag   499
550 Val Thr Ala Ala Gln Leu Leu Val Asn Asp Ser Ser Phe Arg Asp Lys
552                 120                 125                 130
556 gat ttc agg aag caa ctt aat gaa act gtc aag tct atg ctt gat ttg   547
558 Asp Phe Arg Lys Gln Leu Asn Glu Thr Val Lys Ser Met Leu Asp Leu
560                 135                 140                 145
564 agg gtt att cca att ttc aat gag aat gat gct att agc acc cga aga   595
566 Arg Val Ile Pro Ile Phe Asn Glu Asn Asp Ala Ile Ser Thr Arg Arg
568                 150                 155                 160
572 gcc cca tat cag gat tct tct ggt att ttc tgg gat aac gat agc tta   643
574 Ala Pro Tyr Gln Asp Ser Ser Gly Ile Phe Trp Asp Asn Asp Ser Leu
576     165                 170                 175
580 gct gct cta ctg gcg ttg gaa ctg aaa gct gat ctt ctg att ctt ctg   691
582 Ala Ala Leu Leu Ala Leu Glu Leu Lys Ala Asp Leu Leu Ile Leu Leu
584 180                 185                 190                 195
588 agc gat gtt gaa ggt ctt tac aca ggc cct cca agt gat cct aac tca   739
590 Ser Asp Val Glu Gly Leu Tyr Thr Gly Pro Pro Ser Asp Pro Asn Ser
592                 200                 205                 210
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·VERIFICATION SUMMARY   DATE: 01/19/2002
PATENT APPLICATION: US/10/026,767   TIME: 14:40:58

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF3\01182002\J026767.raw**

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

-1-

[Sequence Listing]

<110> Hitachi, LTD.